

## THE ACADEMY THANKS THE FOLLOWING DONORS FOR THEIR SUPPORT OF OUR 14TH ANNUAL HALLOWEEN PARTY:

(\$2,500): Mr. and Mrs. Andrew Barish; Ms. Ann F. Barry; Bertero Family; Mr. and Mrs. W. Richard Bingham; Mr. and Mrs. William R. Hearst III; Jacobsen Family; Morgan Stanley; Mr. and Mrs. William J. Patterson; San Francisco Giants; Mr. Jeffrey Van Harte and Ms. Melissa Smith. (\$1,000): Mr. and Mrs. Matthew K. Berler; Mr. and Mrs. Kevin O. Chessen; Mr. and Mrs. David Dollinger; Mr. and Mrs. Christian P. Erdman; Mr. and Mrs. Troy Griep; Mr. and Mrs. William J. Hume.

## CORPORATE AND FOUNDATION SUPPORT

The Academy thanks the following corporations and foundations for their recent generous contributions:  
For general operating support: \$25,000 from the Wallis Foundation; \$2,500 from San Francisco Toyota.  
For support of education programs: \$10,000 from the Gap Foundation, and \$4,339 from REI, Inc.

## NEW DONOR CIRCLE MEMBERS

**JULY AND AUGUST 2005: \$125 TO \$999**

Many thanks to the following new donors and those who have recently increased their support of the Academy.

Mr. Jae Abel; Ms. Maria Brown and Ms. Carol Preston; Mr. and Mrs. Ed Catmull; Mrs. Melita De Hazes and Mr. Derrick Rebello; Dr. Thomas R. Delebo; Ms. Donna Ellis; Ms. Donna Francesconi; Mr. and Mrs. Ronald P. Giannini; Mr. and Mrs. Patrick Hamill; Mr. Philip Hanawalt; Mr. and Mrs. Fred Levinson; Mr. William Olds, Jr.; Mr. and Mrs. Bruce Pate; Mrs. Betty Ann Prien; Mr. James O. Taylor, Sr. and Ms. Virginia Andracken.

## IN-KIND GIFTS

The Academy library would like to thank William F. Morrison for his very generous donation of books, slides and personal files from his wife's estate, the Estate of Carol Ann Morrison.

## BUY A UNIQUE GIFT FOR FRIENDS AND FAMILY THIS HOLIDAY SEASON!

**GET \$10 OFF A CALIFORNIA ACADEMY OF SCIENCES FAMILY MEMBERSHIP (\$50 INSTEAD OF \$60). SIMPLY MENTION THIS AD UPON PURCHASE.**

**ON-SITE:** The Admission Desk or at the Academy Store  
**ON THE WEB:** [www.calacademy.org/membership](http://www.calacademy.org/membership)  
**BY PHONE:** (800) 794-7576

**BY MAIL:** Send the name and address of your gift recipient plus payment by check or credit card to:

MEMBERSHIP OFFICE  
CALIFORNIA ACADEMY OF SCIENCES  
875 HOWARD STREET  
SAN FRANCISCO, CA 94103-3009

*No renewals with this offer. Expires on January 31, 2006.  
May not be combined with other offers.*

## SAVE THE DATE!

**THE ACADEMY'S 21ST ANNUAL BLACK TIE BALL**

**HOT! HOT! HOT! CELEBRATING OUR EXHIBIT,**

**HOTSPOT: California on the Edge**

**FRIDAY, MAY 5, 2006, 7PM- MIDNIGHT**

**SAN FRANCISCO CITY HALL**

*Please call (415) 321-8149 for more information*

## MAKE HISTORY WITH THE ACADEMY

Discover the unique benefits and events reserved for Academy Friends!

- Invitations to VIP events, including exhibit openings and private receptions
- Special morning visiting privileges
- Private hard hat tours of the new Academy during construction
- Behind-the-scenes tours of our exhibits and collections

## FIND THE LEVEL THAT FITS YOU AND YOUR FAMILY:

Friend	(\$1,000-\$2,499)
Distinguished Friend	(\$2,500-\$4,999)
Trustee's Circle	(\$5,000-\$9,999)
Chairman's Circle	(\$10,000-\$24,999)

For donors who join above the basic Friend level, additional benefits are available, including an exclusive tour of a special exhibition for your party of 10, and an invitation to a private cocktail party with a distinguished scientist. For more information, please email: [development@calacademy.org](mailto:development@calacademy.org) or call (415) 321-8405.

## DISCOVERY

### ARE YOU SURPRISED TO LEARN THAT EACH QUARTER THE ACADEMY SENDS INCOME CHECKS TO SOME MEMBERS?

For over 40 years Academy members have participated in life income plans and had a great way to meet personal objectives while making a permanent future gift to the Academy. You can join them and experience:

- significant immediate tax benefits
- income for life
- supporting the Academy

Academy life income plans include Pooled Income Funds and a variety of flexible Charitable Remainder Trusts. If you would like to learn more about life income gifts or receive information from our estate planning library, including our philanthropy newsletter, *DISCOVERY*, contact *Louise Gregory* at (415) 321-8407 or at [lgregory@calacademy.org](mailto:lgregory@calacademy.org)

You may also return this coupon to Louise at the California Academy of Sciences, 875 Howard Street, San Francisco, CA 94103 or by fax at (415) 321-8402.

Please send me the following brochures:

- ☐ *The Benefits of Life Income Gifts*  
☐ *Gifts of Retirement Plans and Life Insurance*  
☐ *Drafting or Reviewing Your Will*  
☐ *Tax Advantages of Giving Real Estate*  
☐ Please include me in *DISCOVERY* mailings.  
☐ I have included the Academy in my estate plans.  
☐ I would consider including in my plans.

name \_\_\_\_\_

address \_\_\_\_\_

phone \_\_\_\_\_

email \_\_\_\_\_

### CHANGES TO THE ACADEMY RECIPROCAL PROGRAM!

See the current list at [www.calacademy.org/membership](http://www.calacademy.org/membership)

# CALIFORNIA ACADEMY OF SCIENCES

**WINTER  
2005/06**

## MEMBER NEWSLETTER

### HOTSPOT CALIFORNIA ON THE EDGE

#### EXPERIENCE CALIFORNIA AT ITS COOLEST

For most people, the word "California" conjures up images of surfer-studded beaches, hyped-up Hollywood stars, sun-drenched strawberry fields, and carb-counting health nuts. However, California is much more than all this. Besides hosting a diverse population of people, the state is also home to one of the most diverse collections of plant and animal species on the planet. This rich diversity has earned California a title as one of the world's 34 biodiversity hotspots. Unfortunately, membership in



Live mountain yellow-legged frogs, which are now endangered, are on display in the HOTSPOT exhibit.

PHOTO: VANCE VREDENBURG

this exclusive club is a dubious honor. Hotspots are selected not only for the number of endemic species they contain (plants and animals that cannot be found anywhere else on Earth), but also for the amount of stress they have suffered from habitat loss. Experts estimate that less than 25% of the state's habitat remains in pristine condition, due to the impacts of farming, urban expansion, and pollution. The pristine land that does remain in California is a largely unsung – but incredibly important – international treasure. In the Academy's new exhibit, HOTSPOT: California on the Edge, visitors can explore this tremendous terrain, marvel at the unique plants and animals it supports, and learn what they can do to help keep this hotspot healthy.

A number of special programs designed to complement the exhibit will help visitors see just how cool this hotspot really is. Scientific illustrator Jack Laws, who is currently illustrating a field guide to the Sierra Nevada, will work within the exhibit every Tuesday – Friday from December 1 – December 21 and from January 11 – February 28. Visitors will be able to watch as Jack creates scientific renderings of birds, mammals, reptiles, and other animals from the Sierra Nevada region. Every Wednesday at 11:30,



Watch as Jack Laws demonstrates the art of scientific illustration in the HOTSPOT exhibit.

visitors can learn about animals that have adapted to California's coastal ecosystem in "Survivors of the Cold Coast." Every Thursday at noon, kids can come face-to-face with a California Tidepool inhabitant during the "Cool Creature Feature" program. In a special series of tastings and demonstrations, "It's Cool to Be Organic," visitors can learn how eating local, organic foods can help protect biodiversity within California and around the world. Additional programs allow visitors to meet live California arachnids, watch California snakes swallow their supper, and classify California creatures (see calendar for dates and times).

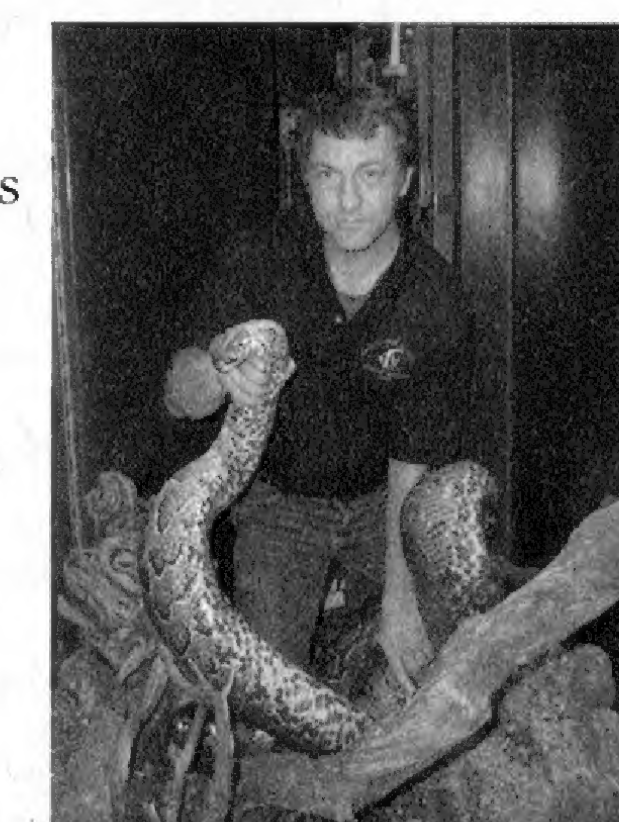
### AQUARIUM UPDATE

#### THE AFRICAN ROCK PYTHONS OF STEINHART AQUARIUM

Popular participants in early Roman Circuses, African rock pythons (*Python sebae*) are now endangered, largely because they are poached for their beautiful hides. Living near water in Africa's grasslands, savannahs, and cane fields, these snakes feed on rodents and birds when they first hatch. As adults, they eat larger prey, including wart hogs, dogs, monkeys, and leopards.

True constrictor snakes, rock pythons feed by stunning and holding their prey with a "pit bull" like bite while wrapping coils around their future meal. They then swallow their prey whole. Pythons

are primitive snakes with vestigial limbs called spurs, which they use to grasp their partners during copulation. After mating, female rock pythons lay approximately one hundred eggs, which they guard aggressively. They keep the eggs warm by coiling around the mass and raising their body temperature with muscular contractions. Eggs that are kept



Biologist Ned McAllister tends to an African rock python that is ready to shed his skin.

PHOTO: TOM TUCKER

at warmer temperatures tend to develop into male snakes, while eggs that are incubated at cooler temperatures tend to develop into females. This ensures a fairly even sex ratio for the hatchlings.

The Academy's rock pythons were rescued by the U.S. Fish and Wildlife Service in 1999 following the arrest of Florida smugglers trafficking rare species. Over the past five years, these snakes have quadrupled in size, feeding on a weekly diet of rats. In twenty-five more years, when the poachers are released, these snakes will reach their adult length of over twenty feet. Visit these snakes any day of the week at 875 Howard Street, or stop by to watch them swallow their supper every Friday at 2 pm.



KICK OFF THE HOLIDAY  
SEASON WITH A  
SHOPPING SPREE!

Starting December 15th, from 5-9pm, get 15% off on all purchases at the Academy Store. The Members Shopping Spree continues December 16-18 from 11am-6pm. Special items and demonstrations will be offered each day. PLUS, the first person to buy a \$60 Family membership each day in the Academy Store will receive a gift certificate to Buca di Beppo's next door!

IT'S COOL TO BE ORGANIC

After witnessing California's stunning biodiversity in the HOTSPOT exhibit, learn how to help protect it by eating sustainably-harvested organic foods. Every Saturday in January from 2 – 4 pm and every Friday in February from 3 – 5 pm, taste a variety of local organic foods, including baked goods, produce, ice cream, wine and beer. For more details, visit [www.calacademy.org](http://www.calacademy.org).

BIOFORUM:  
Winter Symposium for Teachers  
CALIFORNIA ON SHAKY GROUND:  
LIVING IN EARTHQUAKE COUNTRY

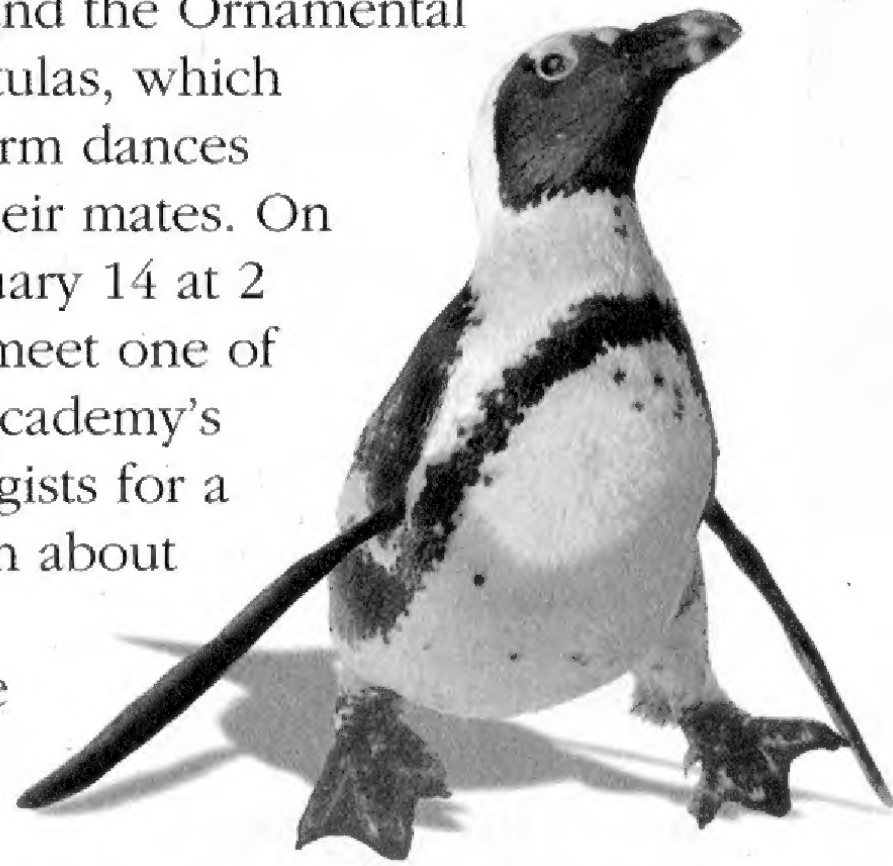
The upcoming 100th anniversary of the 1906 earthquake provides a unique

opportunity to examine what we have learned about earthquakes, their predictability and probability, and their impact on our lives and on our landscapes.

Moderator: Judy Scotchmoor  
Saturday, February 4, 2006;  
8:30 am–4 pm  
University of California  
Museum of Paleontology, Berkeley  
\$25 for members, \$30 for non-members. For more information or to register, call (415) 321-8000.

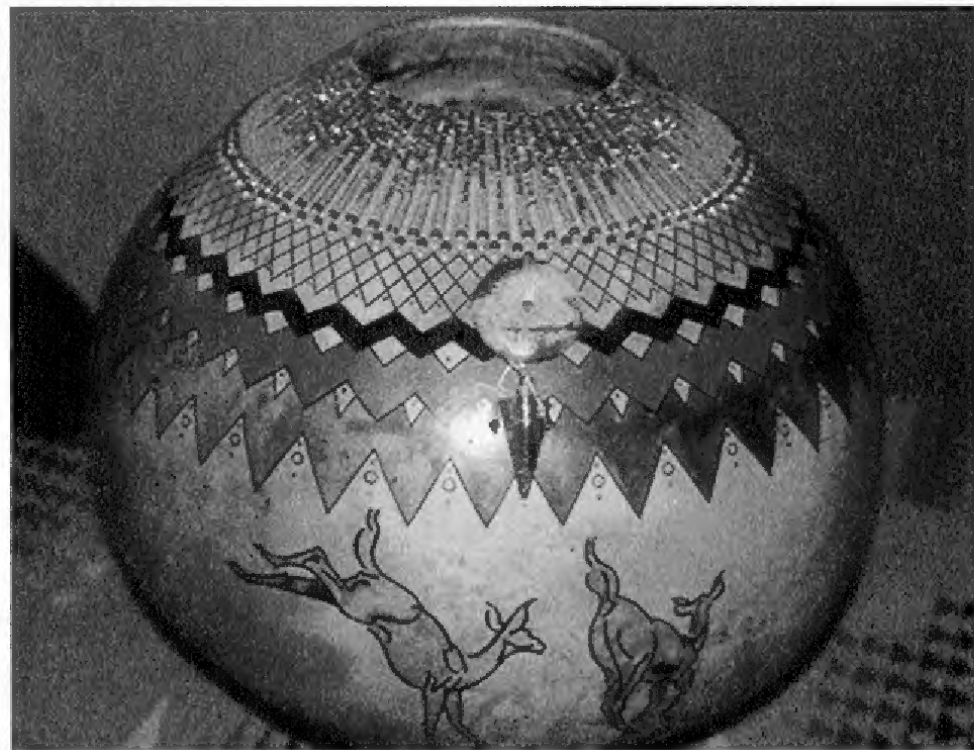
THE SEA OF LOVE

Celebrate Valentine's Day at Steinhart Aquarium from February 13-17 by learning about love in the animal kingdom. Embark on a special scavenger hunt that will lead you to some of the ocean's most amorous creatures, including the Academy's African penguins, which mate for life, and the Ornamental tarantulas, which perform dances for their mates. On February 14 at 2 pm, meet one of the Academy's biologists for a lesson about love in the



GREEK AND ARMENIAN MUSIC  
December 3, 1 pm

Join us for a presentation of music from the eastern Mediterranean region by the Koroyar Ensemble. The program, entitled "From Mt. Olympus to Mt. Ararat," includes lyrical love songs and ancient dance melodies, performed to the rhythm of the *dumbeg* (goblet-shaped hand-drum) and the *daouli* (double-headed drum).



CALIFORNIA INDIAN ETHNOBOTANY  
Saturday, January 14, 10 am – 4 pm

After exploring the rich diversity of California's plant life in the Academy's new HOTSPOT exhibit, join us for a day of special programs to find out how California Indian tribes used these plants to provide shelter, clothing, food, and everyday utensils. Watch as Ruth Orta (Ohlone) grinds acorns into coarse flour for use in acorn soup, once a nutritional food staple of California Indians. Admire the artistry of David Snooks (Washoe) as he decorates gourds with painted designs and beading. Learn how to make brushes from the soaproot plant with Mona Garibay (Ohlone) or how to make rope

from dogbane fibers with Sabrina Garibay (Ohlone). Additionally, Kathy Wallace (a member of the Hoopa Valley tribe) will demonstrate basket-making techniques, and Paul Stone (Paiute/Washoe) will fashion flutes from cedar and elderberry wood.

AFRICAN INFLUENCES ON SOUTH  
AMERICAN DANCE

Saturday, February 4, 1 pm  
In honor of African-American Heritage Month, join Afro-Peruvian drummer Lalo Izquierdo for a performance of Peruvian and Bolivian dances influenced by African music. The Spanish conquistadores brought

Coral Reef. And on February 17, from 3-5 pm, sample sustainably harvested foods from the sea that are renowned for their aphrodisiac qualities. Throughout the week, Academy biologists will be on hand to point out particularly passionate animal behaviors.

DARWIN'S BIRTHDAY

Celebrate Charles Darwin's 197th birthday with the Academy of Sciences on Sunday, February 12th. Cake will be served at 1 pm and a cheer will be raised to the father of evolution. During your visit, stop by the Naturalist Center to learn more about Darwin's work.



CELEBRATE YOUR CHILD'S  
BIRTHDAY AT THE ACADEMY!

Parties include a guided tour of Steinhart Aquarium. Every child can create their own Ocean Scene Diorama to take home. For children ages 3-8, members only. For more information please call (415) 321-8000 or email [birthday@calacademy.org](mailto:birthday@calacademy.org).

African slaves to the Americas in the 1600s to work in the coastal plantations of Peru and in the silver and gold mines of the Andean altiplano. Over time, African and indigenous rhythms merged to form new hybrid styles of music and dance. Lalo has choreographed a selection of dances that pays tribute to his African heritage.

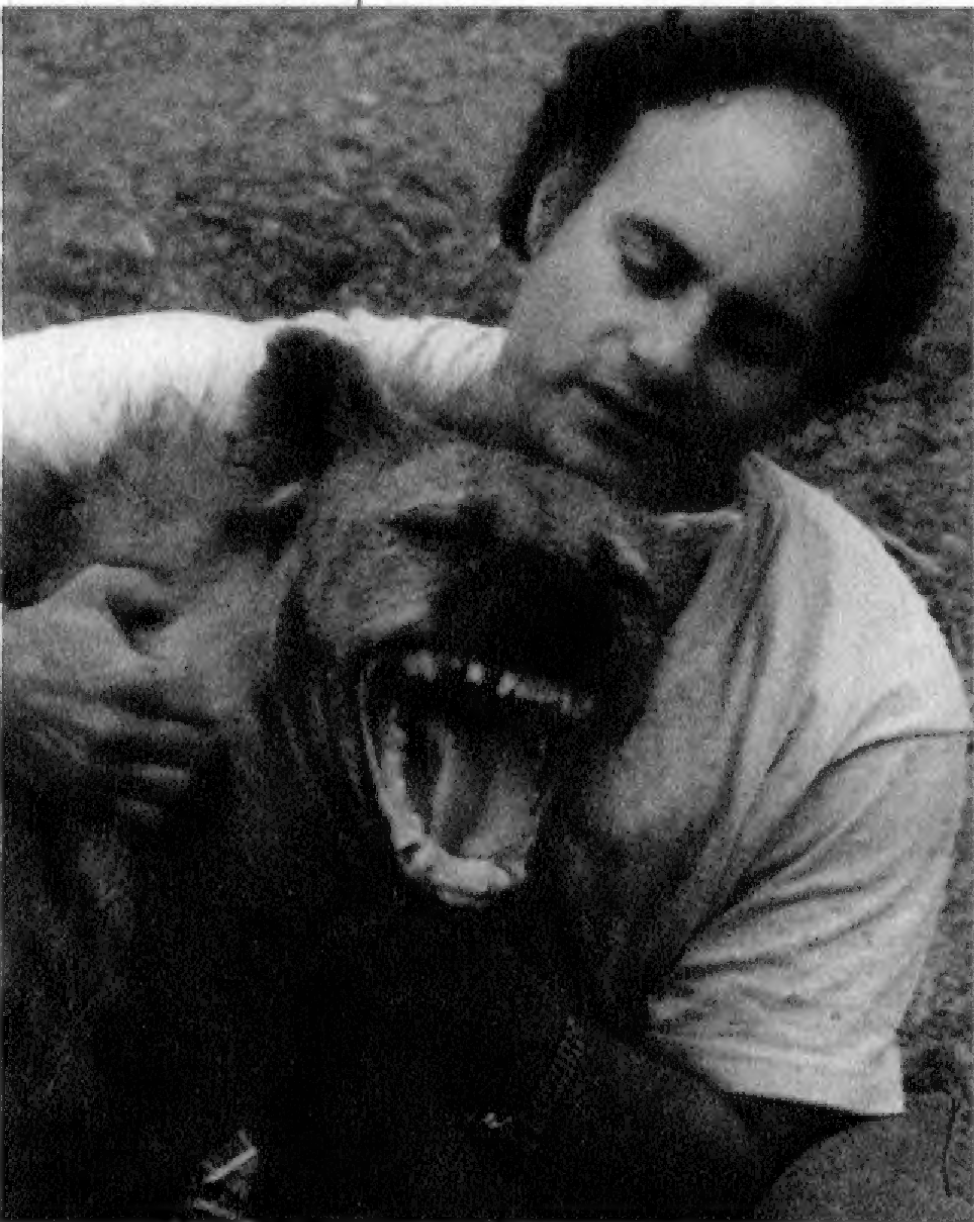
SAVE THE DATE:  
ISHI IN THE  
SAN FRANCISCO BAY AREA

A Seminar by Richard Burrill  
Saturday, March 25th 2006, 9 am-4 pm

Anthropologist Richard Burrill has spent much of his life conducting research and writing books on the life of Ishi, believed to be the last survivor of the Yahi tribe of California Indians. The focus of the seminar will be Ishi's "second world" –the years he spent in the Bay Area (1911-16).

Seminar cost: \$25. For more information or to register, contact June Anderson at 415-321-8385.

LIONS AND LIVESTOCK IN AFRICA  
Laurence Frank, Ph.D., Director, Laikipia  
Predator Project & the Kilimanjaro Lion  
Conservation Project, Kenya



Tuesday, December 20, 2 & 7:30 pm  
Sequoia Boardroom,  
California Academy of Sciences

Fewer than 25,000 African lions remain today, half of which are in Tanzania in protected parks. Outside of the protected park boundaries and elsewhere in Africa, humans and lions have come into increasing conflict since livestock are replacing wild prey as the lions' target. In Kenya, the Laikipia Predator Project and the Kilimanjaro Lion Conservation Project have shown that livestock are effectively protected from lions by ancient African herding practices such as close herding, thornbush night enclosures, and guard dogs. Frank describes how his research on the behavior and biology of lions living in livestock country, as well as traditional Masai knowledge, provides hope for the possibility of lion and livestock co-existence.

Tickets: Free for Academy members, \$8 non-members. Tickets can be purchased by calling (415) 321-8000 or at the door, when available.

GENES AS MARKERS OF BIODIVERSITY  
AND CONSERVATION

Jack Dumbacher, Ph.D., Curator of Birds  
and Mammals, CAS  
Tuesday, January 17, 2 & 7:30 pm  
Sequoia Boardroom,  
California Academy of Sciences

Written about extensively throughout 2005 for his work on avian toxicity, Dumbacher is currently studying the genetics of birds in lowland New Guinea. Through these studies, he has found a great deal of unappreciated biodiversity. Join Dumbacher as he delves into the use of genetics for understanding diversity within animal

species. Learn what this can tell us about the history of the species, the history of an island, and even the future of a species. Finally, discover how a species history, as reflected in the genes, may inform present-day managers and conservationists about which parts of the an ecosystem are likely to have interesting pockets of diversity.

Tickets: Free for Academy members, \$8 non-members. Tickets can be purchased by calling (415) 321-8000 or at the door, when available.

LIFE ABOUNDS IN  
THE YUNNAN PROVINCE  
Dave Kavanaugh, Ph.D., Senior Curator  
of Entomology, CAS



Tuesday, February 21, 2 & 7:30 pm  
Sequoia Boardroom,  
California Academy of Sciences

Since 1998, Kavanaugh has been part of a multi-disciplinary team of Academy scientists that have been working in a remote area of China, discovering a wide range of new species of plants, insects, spiders, and snakes. Though the lowlands of Yunnan Province have been extensively studied by the Chinese, the biota of the Gaoligong Mountains are virtually unknown for many groups, due to its inaccessibility. With few roads, fewer bridges, and little infrastructure, this high-altitude mountain range has been identified by the World Wildlife Fund as one of the world's 34 "Biodiversity Hotspots." With development pressures mounting, the knowledge generated from this multi-national, multi-institutional effort will provide the foundation for an inventory of natural reserves there and guide decision-makers in resource management and use.

Tickets: Free for Academy members, \$8 non-members. Tickets can be purchased by calling (415) 321-8000 or at the door, when available.

BEYOND THE VOID

Simon Yates, climber, author of  
"The Flame of Adventure"  
Wednesday, January 25, 8 pm  
Kanbar Hall, Jewish Community Center  
of San Francisco

In 1985, British climber Simon Yates set off

with Joe Simpson to attempt the West face of the Siula Grande in the majestic Peruvian Andes. Little did he know that the ensuing, epic descent would become one of the world's great survival stories, as told by Joe Simpson in his book "Touching the Void." Yates was the man faced with the decision to cut the rope and continue down the mountain after believing his friend had perished. Join Yates in this exhilarating lecture as he describes the high-altitude adventure and the fateful decision that would so affect the climbing community.

Tickets: \$6 students, \$8 CAS/JCCSF members, \$12 non-members  
Tickets can be purchased by calling (415) 321-8000 or at the door, when available.  
Co-sponsored by World Expeditions.

BENJAMIN DEAN LECTURES

Lectures take place at the San Francisco Jewish Community Center, 3200 California St.  
Tickets are \$4. They can be purchased by calling 415-321-8000 or at the door, when available.

SUPERNOVAE WITH A ROBOTIC  
TELESCOPE

Dr. Weidong Li, University of California  
at Berkeley  
Monday, December 19, 7:30 pm

Finding supernovae systematically is crucial for the study of these violent stellar explosions, which are billions of times brighter than the Sun. The Katzman Automatic Imaging Telescope at Lick Observatory is a robotic 30-inch telescope and the world's most successful nearby supernova search engine. It discovers close to 100 supernovae each year.

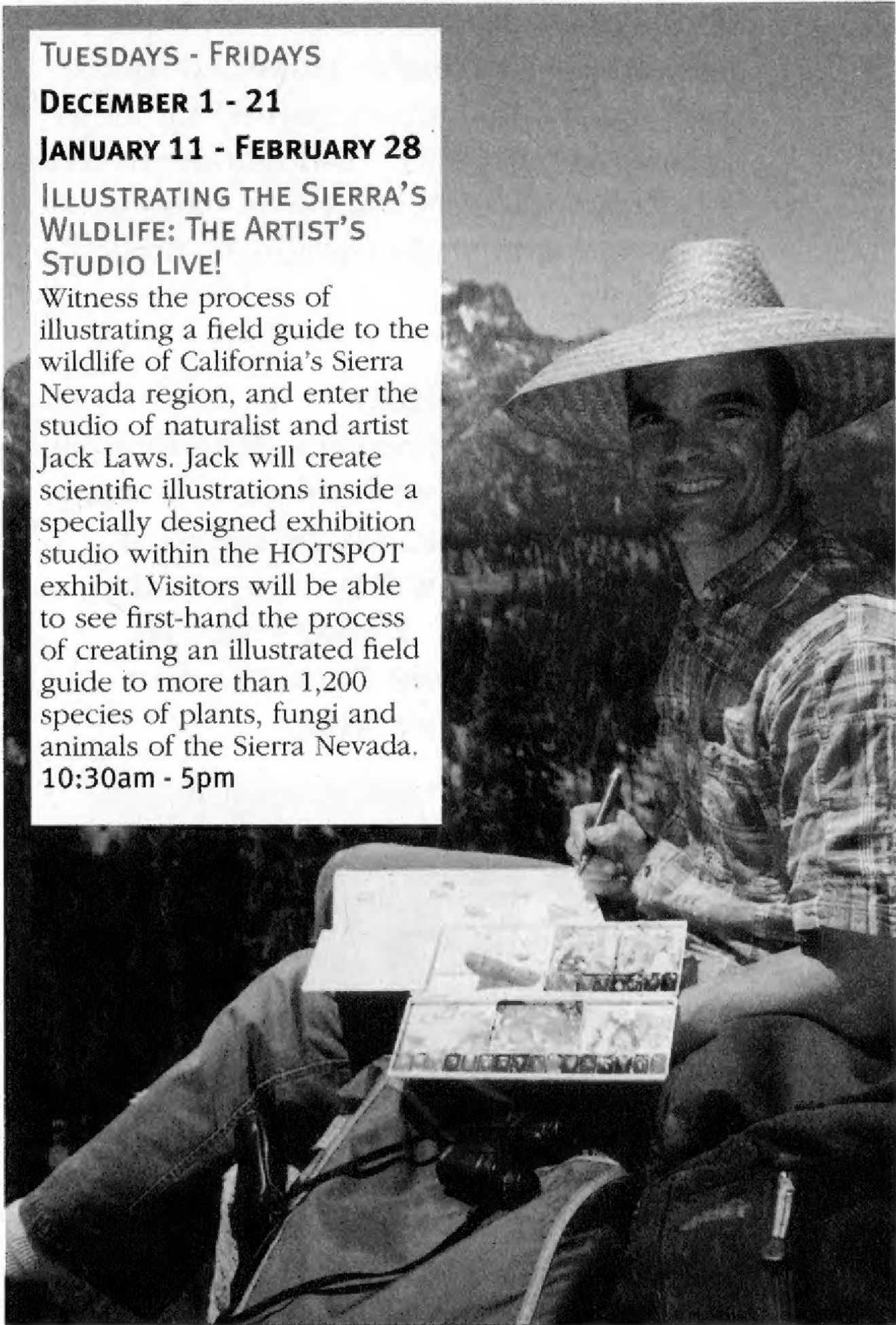
DIGGING A COMET: RESULTS FROM  
NASA'S DEEP IMPACT MISSION  
Dr. Peter Schultz, Brown University,  
Co-Investigator, Deep Impact Mission  
Monday, January 23, 7:30 pm

In July 2005, the Deep Impact spacecraft flew by Comet Tempel 1 and released a probe that steered itself into the comet's path. Overtaken at about 10 kilometers per second, the impactor collided with the comet while the flyby spacecraft watched. Results from this mission are providing an amazing glimpse into the life of a comet, and telling us important information about the early solar system.



TUESDAYS - FRIDAYS  
DECEMBER 1 - 21  
JANUARY 11 - FEBRUARY 28

ILLUSTRATING THE SIERRA'S WILDLIFE: THE ARTIST'S STUDIO LIVE!  
Witness the process of illustrating a field guide to the wildlife of California's Sierra Nevada region, and enter the studio of naturalist and artist Jack Laws. Jack will create scientific illustrations inside a specially designed exhibition studio within the HOTSPOT exhibit. Visitors will be able to see first-hand the process of creating an illustrated field guide to more than 1,200 species of plants, fungi and animals of the Sierra Nevada. 10:30am - 5pm



1 Thursday

COOL CREATURE FEATURE  
Visit the Discovery Tidepool and learn about a different California creature each week. You may even get to hold one of the featured animals. 12pm

2 Friday

SNAKE FEEDING  
Watch as an Academy biologist feeds the snakes in SSSsnake Alley. 2pm

SKY FRIDAYS

Join an Academy educator for fun, interactive activities and presentations on a variety of astronomical topics. From the Earth and its Moon to the farthest reaches of the universe, discover some of the coolest (and hottest) objects in our universe. Programs are appropriate for kids ages 5-12. 12:30pm and 2:30pm

SCIENCE ILLUSTRATION DEMONSTRATION  
Watch a scientific illustrator create images and demonstrate techniques. 3pm

RAPTOR DINOSAURS: BIRD-LIKE PREDATORS OF THE MESOZOIC  
A lively presentation for all ages on Velociraptor and its close relatives. Academy "Dino Docent" Ralph Miller uses fossil casts and mechanical models to show you what these amazing Cretaceous killers were really like, inside and out. 11am and 12pm

3 Saturday

KAYAKING DRAKES ESTERO  
Adult field trip. Pre-registration required. See Adult & Family Courses, page 6. 9 am-4:30 pm

FROM THE OCEAN TO THE BAY  
Golden Gate Bridge Vista Point, San Francisco. Family field trip. Pre-registration required. See Adult & Family Courses, page 6. 10 am-1 pm

ALL ABOUT STARS

Join an Academy educator for fun, interactive activities and presentations on stars just like (and not like) our star, the Sun. Learn what they're made of, how big they can really get, and other reasons why scientists think they're cool. Programs are appropriate for kids ages 5-12. 12:30pm and 2:30pm

STORY TIME  
Children ages 3 and up are welcome to join us for stories about California. 10:30am

GREEK AND ARMENIAN MUSIC  
See page 2 for details. 1pm

4 Sunday

IT'S COOL TO BE A SCIENTIST  
Learn how scientists identify species and put your new skills to work with a variety of California creatures. 1:30pm

TARANTULAS IN CALIFORNIA!  
Get up-close and personal with a live tarantula, and discover the fascinating secret life of

these misunderstood arachnids. Visitors of all ages are welcome to join the program. 11:30am and 2pm

5 Monday

CORAL REEF CARETAKING  
See December 5. 2pm

7 Wednesday

CORAL REEF CARETAKING  
See December 5. 2pm

SURVIVORS OF THE COLD COAST  
Meet an Academy naturalist and examine scientific specimens of creatures that have adapted to life along California's coast. 12pm

IT'S COOL TO BE A SCIENTIST  
See December 4. 1:30pm

8 Thursday

COOL CREATURE FEATURE  
See December 1. 12pm

9 Friday

SNAKE FEEDING  
See December 2. 2pm

SKY FRIDAYS  
See December 2. 12:30pm and 2:30pm

SCIENCE ILLUSTRATION DEMONSTRATION  
See December 2. 3pm

10 Saturday

ALL ABOUT STARS  
See December 3. 12:30pm and 2:30pm

STORY TIME  
See December 3. 10:30am

GLOBAL WARMING  
Explore factors that affect global warming in this special presentation. 11am - 4pm

11 Sunday

IT'S COOL TO BE A SCIENTIST  
See December 4. 1:30pm

12 Monday

CORAL REEF CARETAKING  
See December 5. 2pm

14 Wednesday

CORAL REEF CARETAKING  
See December 5. 2pm

SURVIVORS OF THE COLD COAST  
See December 7. 12pm

IT'S COOL TO BE A SCIENTIST  
See December 4. 1:30pm

3<sup>rd</sup>

THURSDAYS

15 Thursday

THIRD THURSDAY

Clownfish, corals and cocktails—the Academy after-hours is the place to be on the third Thursday of every month. 5-9pm

16 Friday

SNAKE FEEDING  
See December 2. 2pm

SKY FRIDAYS  
See December 2. 12:30pm and 2:30pm

SCIENCE ILLUSTRATION DEMONSTRATION  
See December 2. 3pm

17 Saturday

ALL ABOUT STARS  
See December 3. 12:30pm and 2:30pm

STORY TIME  
See December 3. 10:30am

18 Sunday

IT'S COOL TO BE A SCIENTIST  
See December 4. 1:30pm

TARANTULAS IN CALIFORNIA!  
See December 4. 11:30am and 2pm

19 Monday

CORAL REEF CARETAKING  
See December 5. 2pm

20 Tuesday

IT'S COOL TO BE A SCIENTIST  
See December 4. 1:30pm

LIONS AND LIVESTOCK IN AFRICA  
Laurence Frank, Ph.D., Director, Laikipia Predator Project & the Kilimanjaro Lion Conservation Project, Kenya. See page 7 for details. 2 and 7:30pm

21 Wednesday

CORAL REEF CARETAKING  
See December 5. 2pm

SURVIVORS OF THE COLD COAST  
See December 7. 12pm

IT'S COOL TO BE A SCIENTIST  
See December 4. 1:30pm

22 Thursday

COOL CREATURE FEATURE  
See December 1. 12pm

IT'S COOL TO BE A SCIENTIST  
See December 4. 1:30pm

23 Friday

SNAKE FEEDING  
See December 2. 2pm

IT'S COOL TO BE A SCIENTIST  
See December 4. 1:30pm

24 Saturday

IT'S COOL TO BE A SCIENTIST  
See December 4. 1:30pm

26 Monday

CORAL REEF CARETAKING  
See December 5. 2pm

27 Tuesday

IT'S COOL TO BE A SCIENTIST  
See December 4. 1:30pm

28 Wednesday

CORAL REEF CARETAKING  
See December 5. 2pm

IT'S COOL TO BE A SCIENTIST  
See December 4. 1:30pm

29 Thursday

IT'S COOL TO BE A SCIENTIST  
See December 4. 1:30pm

30 Friday

SNAKE FEEDING  
See December 2. 2pm

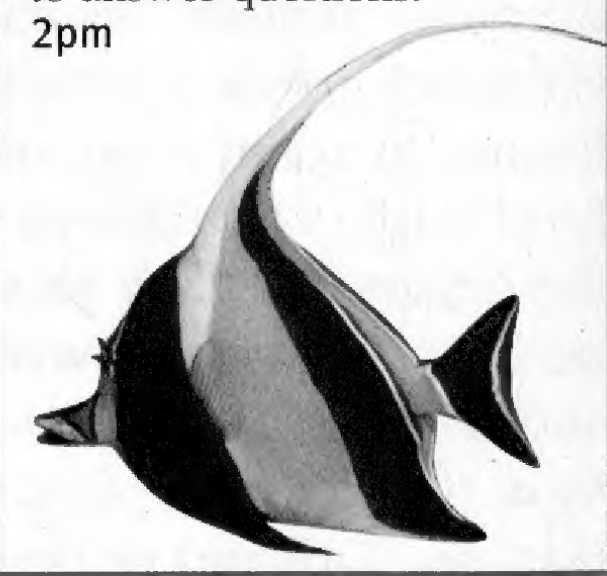
IT'S COOL TO BE A SCIENTIST  
See December 4. 1:30pm

31 Saturday

IT'S COOL TO BE A SCIENTIST  
See December 4. 1:30pm

Mondays & Wednesdays

CORAL REEF CARETAKING  
Watch as an Academy biologist dives into the two-story Coral Reef tank to care for the reef's inhabitants. A second biologist will be on hand to answer questions. 2pm



5 Thursday

IT'S COOL TO BE A SCIENTIST  
Learn how scientists identify species and put your new skills to work with a variety of California creatures. 1:30pm

6 Friday

SNAKE FEEDING  
Watch as an Academy biologist feeds the snakes in SSSsnake Alley. 2pm

SKY FRIDAYS

Join an Academy educator for fun, interactive activities and presentations on a variety of astronomical topics. From the Earth and its Moon to the farthest reaches of the universe, discover some of the coolest (and hottest) objects in our universe. Programs are appropriate for kids ages 5-12. 12:30pm and 2:30pm

SCIENCE ILLUSTRATION DEMONSTRATION  
Watch a scientific illustrator create images and demonstrate techniques. 3pm

7 Saturday

STORY TIME  
Children ages 3 and up are welcome to join us for stories about California. 10:30am

ALL ABOUT STARS  
Join an Academy educator for fun, interactive activities and presentations on stars just like (and not like) our star, the Sun. Learn what they're made of, how big they can really get, and other reasons why scientists think they're cool. Programs are appropriate for kids ages 5-12. 12:30pm and 2:30pm

IT'S COOL TO BE A SCIENTIST  
See January 5. 1:30pm

IT'S COOL TO BE ORGANIC  
Sample local organic foods and beverages, and learn how you can help keep the California hotspot healthy. See Highlights, page 2, for more information. 2-4pm

8 Sunday

WINTER BIRDS OF BODEGA BAY  
Doran Regional Park, Sonoma County. Adult field trip. Pre-registration required. See Adult & Family Courses, page 6. 9 am - 3:30pm

9 Monday

CORAL REEF CARETAKING  
Watch as an Academy biologist dives into the two-story Coral Reef tank to care for the reef's inhabitants. A second biologist will be on hand to answer questions. 2pm

11 Wednesday

SURVIVORS OF THE COLD COAST  
Meet an Academy naturalist and examine scientific specimens of creatures that have adapted to

life along California's coast. 12pm

CORAL REEF CARETAKING  
See January 9. 2pm

ILLUSTRATING CALIFORNIA BIRDS  
Join Academy naturalist and illustrator Jack Laws for a 45 minute illustration workshop. Jack will review basic field illustration techniques and guide program participants through the process of illustrating wildlife. During the month of January, Jack's workshops will focus on illustrating California birds. 2:30pm



12 Thursday

COOL CREATURE FEATURE  
Visit the Discovery Tidepool and learn about a different California creature each week. You may even get to hold one of the featured animals. 12pm

IT'S COOL TO BE A SCIENTIST  
See January 5. 1:30pm

THE ART AND SCIENCE OF MUSHROOM HUNTING  
See Adult & Family Courses, page 6. 7:30 - 9pm



13 Friday

SNAKE FEEDING  
See January 6. 2pm

SKY FRIDAYS  
See January 6. 12:30pm and 2:30pm

SCIENCE ILLUSTRATION DEMONSTRATION  
Watch a scientific illustrator create images and demonstrate techniques. 3pm

14 Saturday

BIRDING AT PALO ALTO AND MOUNTAIN VIEW  
Palo Alto Baylands Preserve, Palo Alto. Adult field trip. Pre-registration required. See Adult & Family Courses, page 6. 8am - 3pm

STORY TIME  
See January 7. 10:30am

ALL ABOUT STARS  
See January 7. 12:30pm and 2:30pm

IT'S COOL TO BE A SCIENTIST  
See January 5. 1:30pm

IT'S COOL TO BE ORGANIC  
See January 7. 2-4pm

16 Monday

CORAL REEF CARETAKING  
See January 9. 2pm

17 Tuesday

GENES AS MARKERS OF BIODIVERSITY AND CONSERVATION  
See page 7 for details. 2 and 7:30 pm

18 Wednesday

SURVIVORS OF THE COLD COAST  
See January 11. 12pm

CORAL REEF CARETAKING  
See January 9. 2pm

ILLUSTRATING CALIFORNIA BIRDS  
See January 11. 2:30pm

19 Thursday

COOL CREATURE FEATURE  
See January 12. 12pm

IT'S COOL TO BE A SCIENTIST  
See January 5. 1:30pm

THIRD THURSDAY  
5-9pm

20 Friday

SNAKE FEEDING  
See January 6. 2pm



SKY FRIDAYS  
See January 6. 12:30pm and 2:30pm

SCIENCE ILLUSTRATION DEMONSTRATION  
Watch a scientific illustrator create images and demonstrate techniques. 3pm

21 Saturday

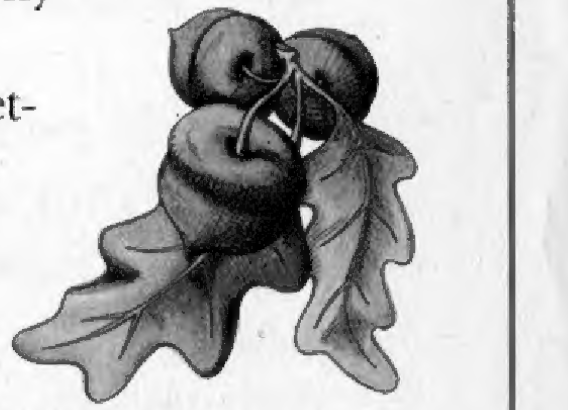
STORY TIME  
Children ages 3 and up are welcome to join us for stories about California. 10:30am

ALL ABOUT STARS

14 Saturday

CALIFORNIA ETHNOBOTANY

After exploring the rich diversity of California's plant life in the Academy's new HOTSPOT exhibit, join us for a day of special programs to find out how California Indian tribes used these plants to provide shelter, clothing, food, and everyday utensils. Watch as Ruth Orta (Ohlone) grinds acorns into coarse flour for use in acorn soup, once a nutritional food staple of California Indians. Admire the artistry of David Snooks (Washoe) as he decorates gourds with painted designs and beading. Learn how to make brushes from the soaproot plant with Mona Garibay (Ohlone) or how to make rope from dogbane fibers with Sabrina Garibay (Ohlone). Additionally, Kathy Wallace (a member of the Hoopa Valley tribe) will demonstrate basket-making techniques, and Paul Stone (Paiute/Washoe) will fashion flutes from cedar and elderberry wood. Takes place in the Classroom.



10 am - 4pm

See January 7. 12:30pm and 2:30pm

IT'S COOL TO BE A SCIENTIST  
See January 5. 1:30pm

IT'S COOL TO BE ORGANIC  
See January 7. 2pm-4pm

22 Sunday

GLOBAL WARMING  
Explore factors that affect global warming in this special presentation. 11am-4pm

28 Saturday

STORY TIME  
See January 7. 10:30am

ALL ABOUT STARS  
See January 7. 12:30pm and 2:30pm

IT'S COOL TO BE A SCIENTIST  
See January 5. 1:30pm

IT'S COOL TO BE ORGANIC  
See January 7. 2-4pm

30 Monday

CORAL REEF CARETAKING  
See January 9. 2pm

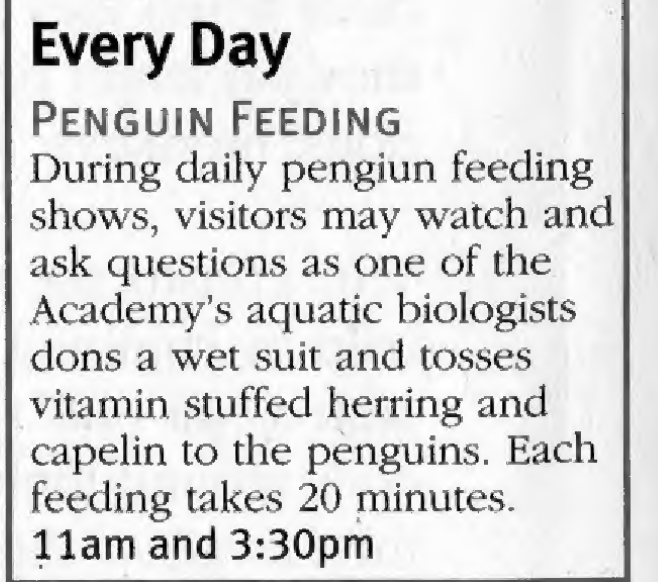
26 Thursday

IT'S COOL TO BE A SCIENTIST  
See January 5. 1:30pm

KEY TO CREATURES  
See January 5. 1:30pm

27 Friday

RAPTOR DINOSAURS: BIRD LIKE PREDATORS OF THE MESOZOIC  
A lively presentation for all ages on Velociraptor and its close relatives. Academy "Dino Docent" Ralph Miller uses fossil casts and mechanical models to show you what these amazing Cretaceous killers were really like, inside and out. 11am and 12pm





**1 Wednesday****SURVIVORS OF THE COLD****COAST**

Meet an Academy naturalist and examine scientific specimens of creatures that have adapted to life along California's coast. 12pm

**ILLUSTRATING CALIFORNIA BUGS**

Join Academy naturalist and illustrator Jack Laws for a 45 minute illustration workshop. Jack will review basic field illustration techniques and guide program participants through the process of illustrating wildlife. During the month of February, Jack's workshops will focus on illustrating insects and other invertebrates found in California. 2:30pm

**CORAL REEF CARETAKING**

Watch as an Academy biologist dives into the two-story Coral Reef tank to care for the reef's inhabitants. A second biologist will be on hand to answer questions. 2pm

**2 Thursday****COOL CREATURE FEATURE**

Visit the Discovery Tidepool and learn about a different California



creature each week. You may even get to hold one of the featured animals. 12pm

**LIFE IN SPACE**

Adult seminar (second evening Feb. 9). Pre-registration required. See Adult & Family Courses, page 6. 7-9pm

**3 Friday**

**RAPTOR DINOSAURS: BIRD LIKE PREDATORS OF THE**

**4 Saturday****AFRICAN INFLUENCES ON SOUTH AMERICAN DANCE**

In honor of African-American Heritage Month, join Afro-Peruvian drummer Lalo Izquierdo for a performance of Peruvian and Bolivian dances influenced by African music. The Spanish conquistadores brought African slaves to the Americas in the 1600s to work in the coastal plantations of Peru and in the silver and gold mines of the Andean altiplano. Over time, African and indigenous rhythms merged to form new hybrid styles of music and dance. Lalo has choreographed a selection of dances that pays tribute to his African heritage. 1pm

**MESOZOIC**

A lively presentation for all ages on Velociraptor and its close relatives. Academy "Dino Docent" Ralph Miller uses fossil casts and mechanical models to show you what these amazing Cretaceous killers were really like, inside and out. 11am and 12pm

**SNAKE FEEDING**

Watch as an Academy biologist feeds the snakes in SSSsnake Alley. 2pm

**SCIENCE ILLUSTRATION DEMONSTRATION**

Watch a scientific illustrator create images and demonstrate techniques. 3pm

**IT'S COOL TO BE ORGANIC**

Sample local organic foods and beverages, and learn how you can help keep the California hotspot healthy. See Highlights, page 2. 3-5pm

**4 Saturday****STORY TIME**

Children ages 3 and up are welcome to join us for stories about California. 10:30am

**5 Sunday****IT'S COOL TO BE A SCIENTIST**

Learn how scientists identify species and put your new skills to work with a variety of California creatures. 1:30pm

**6 Monday****CORAL REEF CARETAKING**

See February 1. 2pm

**7 Tuesday****IT'S COOL TO BE A SCIENTIST**

See February 5. 1:30pm

**8 Wednesday****SURVIVORS OF THE COLD****COAST**

See February 1. 12pm

**CORAL REEF CARETAKING**

See February 1. 2pm

**ILLUSTRATING CALIFORNIA BUGS**

See February 1. 2:30pm

**9 Thursday****COOL CREATURE FEATURE**

See February 2. 12pm

**10 Friday****SNAKE FEEDING**

See February 3. 2pm

**SCIENCE ILLUSTRATION**

**DEMONSTRATION**  
Watch a scientific illustrator create images and demonstrate techniques. 3pm

**IT'S COOL TO BE ORGANIC**

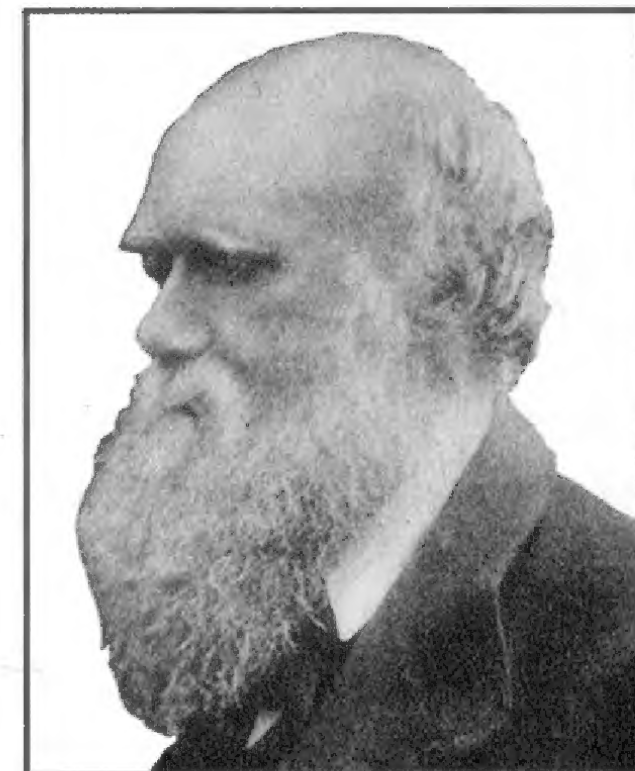
Sample local organic foods and beverages, and learn how you can help keep the California hotspot healthy. See Highlights for more information. 3-5pm

**11 Saturday****STORY TIME**

See February 4. 10:30am

**GLOBAL WARMING**

Explore factors that affect global warming in this special presentation. 11am-4pm

**12 Sunday****CHARLES DARWIN'S BIRTHDAY**

Celebrate Charles Darwin's 197th birthday with a special cake and raise a cheer to the father of evolution. Takes place in the lobby. 1pm

**IT'S COOL TO BE A SCIENTIST**

Learn how scientists identify species and put your new skills to work with a variety of California creatures. 1:30pm

**February 13-17****SEA OF LOVE**

Celebrate Valentine's Day at Steinhart Aquarium from February 13-17 by learning about love in the animal kingdom. Embark on a special scavenger hunt that will lead you to some of the ocean's most amorous creatures, including the Academy's African penguins, which mate for life, and the Ornamental tarantulas, which perform dances for their mates.

**13 Monday****CORAL REEF CARETAKING**

See February 1. 2pm

**14 Tuesday****IT'S COOL TO BE A SCIENTIST**

See February 5. 1:30pm

**LOVE IN THE CORAL REEF**

Meet one of the Academy's aquatic biologists, and learn about some of the most interesting mating practices that take place in coral reefs. 2pm

**15 Wednesday****Mondays & Wednesdays****CORAL REEF CARETAKING**

Watch as an Academy biologist dives into the two-story Coral Reef tank to care for the reef's inhabitants. A second biologist will be on hand to answer questions. 2pm

**SURVIVORS OF THE COLD****COAST**

See February 1. 12pm

**CORAL REEF CARETAKING**

See February 1. 2pm

**ILLUSTRATING CALIFORNIA BUGS**

See February 1. 2:30pm

**16 Thursday****COOL CREATURE FEATURE**

See February 2. 12pm

**THIRD THURSDAY**

5-9pm

**17 Friday****SNAKE FEEDING**

See February 3. 2pm

**SCIENCE ILLUSTRATION**

**DEMONSTRATION**  
Watch a scientific illustrator create images and demonstrate techniques. 3pm

**IT'S COOL TO BE ORGANIC**

Sample local organic foods and beverages, and learn how you can help keep the California hotspot healthy. See Highlights, page 2. 3-5pm

**18 Saturday****LAS GALLINAS WILDLIFE****PONDS**

Las Gallinas Wildlife Ponds, Marin County. Adult field trip. Pre-registration required. See Adult & Family Courses, page 6. 8am-12pm

**STORY TIME**

See February 4. 10:30am

**20 Monday**

*Pre-registration is required for all Adult & Family Courses. For more information, call (415) 321-8000, email [edregistrar@calacademy.org](mailto:edregistrar@calacademy.org), or visit [www.calacademy.org/education/course\\_catalog](http://www.calacademy.org/education/course_catalog).*

**KAYAKING DRAKES ESTERO****Field Trip with David Wimpfheimer**

Saturday, December 3, 9 am-4:30 pm

**Drakes Estero,****Point Reyes National Seashore**

Glide silently past thousands of ducks, grebes, loons, shorebirds, and other waterbirds in one of Point Reyes' most pristine estuaries during its calmest season. At a remote landing, take a short walk as migrant raptors fly overhead and harbor seals return curious glances from the water. No prior kayaking experience is necessary, and all equipment is provided for this tranquil five-mile paddle. Full instruction is given before departure. Suitable for adults and teens ages 16 and up.

**\$125 members & \$135 non-members**

**FROM THE OCEAN TO THE BAY****Field Trip with Chris Giorni**

Saturday, December 3, 10 am-1 pm

**Golden Gate Bridge Vista Point,****San Francisco**

Join us on an amazing San Francisco safari. Stroll by chert outcrops and coyote brush-covered hills to the mouth of the Bay at Fort Point and onto the sandy shores of Crissy Field beach, bustling with double-crested cormorants and brown pelicans. Investigate the rocky intertidal zones, where mussels, rock isopods, and crabs dwell. Suitable for families with children ages 5 and up.

**\$30 members & \$40 non-members**

**WINTER BIRDS OF BODEGA BAY****Field Trip with David Wimpfheimer**

Sunday, December 4, 9 am-3:30 pm

**Doran Regional Park, Sonoma County**

One of California's best birding areas, Bodega Bay is a critical feeding area for thousands of ducks, grebes, loons, pelicans, herons, and other waterbirds. The tidal flats, rocky shores, and beaches provide diverse habitats for a huge number of godwits, dunlin, and other sandpipers. Many raptors such as peregrine falcons and northern harriers take advantage of this rich fare. Focus on bird identification and behavior during several short and easy walks. Suitable for adults and teens ages 15 and up.

**\$30 members &**

**\$40 non-members**

**THE ART AND SCIENCE****OF MUSHROOM HUNTING****Seminar and Field Trips with****Debbie Viess**

Thursday, January 12, 7:30-9 pm

**Academy Classroom**

Saturday, January 21, 10 am-1 pm

**Memorial Park, Loma Mar**

Saturday, January 28, 10 am-3 pm

**Point Reyes National Seashore****or Salt Point State Park**

Discover a fungal wonderland in this three-part course: one evening seminar with a slide show and hands-on learning and two field trips to premier Bay Area mushroom habitats. Head south on the first field trip to Memorial Park in San Mateo County, which has a diversity of habitats and easy walking. On the second field trip, depending upon conditions, head north to either Point

**Reyes National Seashore****or Salt Point State Park;**

both of these parks

allow you to collect

up to 5 pounds of

mushrooms per person.

By course's end, you will have

learned how to identify and

appreciate many of the edible,

poisonous, and ornamental

species that occur here in Northern

California. Suitable for adults and

teens ages 15 and up.

**\$60 members & \$70 non-members**

**BIRDING AT PALO ALTO AND****MOUNTAIN VIEW****Field Trip with Dan Murphy**

Saturday, January 14, 8 am-3 pm

**Palo Alto Baylands Preserve, Palo Alto**

With levees and boardwalks, Palo Alto Baylands and Mountain View Shoreline are among the most accessible sites for birders on San Francisco Bay. Both the baylands and shoreline have freshwater marshes, extensive mudflats, and open grassy areas, where 80 bird species—including ducks, shorebirds, waders, and raptors—winter in these urban areas. Clapper and black rails are regularly seen at the baylands' extensive salt marsh.

Suitable for adults and teens ages 15 and up.

**\$30 members & \$40 non-members**

**LIFE IN SPACE****Seminar with Seth Shostak**

2 Thursdays, February 2 & 9, 7-9 pm

**Academy Classroom**

There is now compelling evidence that many billions of planets orbit silently and unseen within the star fields of the Milky Way. Could some of these planets support life? Consider why we think life could be as common as telephone poles, how we could find it, and whether it's possible that life could spread from planet to planet or star to star. Suitable for adults and teens ages 15 and up.

**\$30 members & \$40 non-members**

**LAS GALLINAS WILDLIFE PONDS****Field Trip with Dan Murphy**

Saturday, February 18, 8 am-noon

**Las Gallinas Wildlife Ponds,****Marin County**

The settling ponds, marshes, and uplands at Las Gallinas are excellent spots to view some of the Bay Area's wintering birds. Stroll two miles along easily accessible levees to observe a variety of ducks, waders, and shorebirds. Expect to see several species of hawks and many upland birds passing the winter in this rich lowland-feeding zone. Suitable for adults and teens ages 15 and up.

**\$30 members & \$40 non-members**

**STAR GAZING****AT THE SF BOTANICAL GARDEN**

Join Bing Quock of the California Academy of Sciences' Morrison Planetarium for a night-sky viewing session on the beautiful grounds of the San Francisco Botanical Garden in Golden Gate Park. Quock will use a laser to point out notable star patterns that are visible to the unaided eye, then guide a deeper exploration with binoculars and a telescope. Dress warmly, bring a quality pair of binoculars (if you have them), a red-colored flashlight to preserve your night-vision, and your curiosity about the night sky! Class is cancelled in the event of cloudy weather.

*For more information, call the SF Botanical Garden at (415) 661-1316. Academy members \$8 per night (families \$13); non-members \$12 per night (families \$18)*

**LATE-AUTUMN SKIES**

Friday, December 2, 6-7:30 pm

As we approach the start of winter, the stars of summer are still prominent, though setting in the west at sunset. The constellations of fall are directly overhead, and the famous winter constellations are just rising in the east, led by the monstrous Taurus the Bull. The Red Planet Mars also stands blazing in the southeast after sunset, and we'll gaze at it through a telescope, along with the Andromeda Galaxy and the strikingly-beautiful Pleiades star cluster!

**MID-WINTER SKIES**

Friday, January 27, 6-7:30 pm

The long nights of winter are usually the clearest, showcasing some of the brightest and best-known constellations in the heavens: Orion the Hunter, Taurus the Bull, Gemini the Twins, and the deep-space wonders within them that can be seen with a medium-size telescope, such as the Orion Nebula and the beautiful Pleiades star cluster. This year, two planets are visible after sunset: the Red Planet Mars and the magnificent ringed planet Saturn.

**LATE-WINTER SKIES**

Friday, February 24

6:30-8 pm (sunset at 6 pm)

The bright stars of the Winter Circle are in full bloom, dominating the night skies of the season. We'll look at Orion the Hunter, Taurus the Bull, and Gemini the Twins, examine some of the telescope treasures within them, and explore the Red Planet Mars and the Ringed Planet Saturn. In late February, we even have a brief opportunity to glimpse the ever-elusive planet Mercury!